

## *Woven Mesh Gabion Baskets, Mattresses & Rockfall Netting*

### Introduction

For over a century, triple twist hexagonal mesh has been used successfully in construction work. The triple twist weaving prevents unravelling. Baskets and mattresses made of this mesh fabric are a valid and effective technical solution in the design, construction and maintenance of a variety of protective flexible structures.

### Advantages using Woven Mesh Gabions

- Ability to deform without cracking allowing unpredictable movement and settlement without loss of stability.
- Blends easily and harmoniously with the natural surroundings.
- Low cost alternative to concrete or masonry structures.
- Very high resistance to natural forces due to better tensile strength.
- Simple and speedy installation, making it cost effective.
- Easy and cheap repair to damaged cages.

### Applications

- Retaining wall structures
- River and canal training works
- Erosion and scour protection; roadway protection; bridge protection
- Hydraulic structures, dams and culverts
- Coastal protection works



### Advantages of our Woven Mesh Gabions

- Conforms to all the relevant design standards and is BBA certified.
- The mesh is orientated the logical way, with the weave running vertically, improving the stiffness of the baskets, making installation easier and quicker.
- All standard sizes are in stock in our yard in Dublin.
- You can avail of our specialist installation service.
- Triple twisted mesh will not unravel if one wire should break.



## Specification

Woven Mesh gabion wires strictly conform to BS1052:1980 for tensile strength and Hot dip Galvanised or Galfan coated to BS443/EN10244-2, ensuring a longer life. The meshes can then be PVC coated to safeguard against corrosion and other weathering effects, especially when the gabions are to be used in salty and highly polluted environments.

Gabion boxes are formed from panels of triple twisted mesh which are framed by thicker selvedge wires. End panels and diaphragms are at 1m centres. The triple twist weaving of the mesh prevents unravelling should one wire breaks.

Lacing wire shall be provided separately for site assembly. Galfan and stainless steel "C" rings are also available at extra cost if required.

Woven Mesh gabions are also available in Cylindrical and Sac form with diameters of 0.65m, 0.95m and in lengths of 2.0m and 3.0m.

All our PVC-U coated Woven Mesh gabions are BBA certified to comply with the requirements of DETR, HA MCHW, Volume 1 Specification for Highway Works, Clause 626. BBA Certificate Numbers 00/3682 and 99/R117

## Notes

All popular sizes are usually in stock and available immediately. Other sizes may require a lead in time. Always place orders as early as possible to guarantee availability.



## Gabion Boxes

Gabion boxes are designed on the principle of mass earth retaining wall. The strength and flexibility of the triple twisted mesh helps withstand and absorb the forces generated by retained earth or flowing water.



## GABION BOXES

Nominal Box sizes (m)	No. of diaphragms (no.)	Capacity per box (m3)	Standard mesh sizes (mm)	Standard wire diameter (mm)
1.0x1.0x0.5	Nil	0.50	60 x 80	Heavily Galvanised or Galfan coated wire 2.20, 2.40, 2.70, 3.00 3.4 <b>OR</b> PVC coated on Heavily Galvanised or Galfan coated wire 2.2/3.2,2.4/3.4,2.7/3.7 3.0/4.0,3.4/4.4
1.0x1.0x1.0	Nil	1.00	80x100	
1.5x1.0x0.5	Nil	0.75	100 x 120	
1.5x1.0x1.0	Nil	1.50		
2.0x0.5x0.5	1	0.50		
2.0x1.0x0.5	1	1.00		
2.0x1.0x1.0	1	2.00		
3.0x1.0x0.5	2	1.50		
3.0x1.0x1.0	2	3.00		
4.0x1.0x0.5	3	2.00		
4.0x1.0x1.0	3	4.00		

## Mattresses

Mattresses are used on level ground but more commonly used on slopes or river banks for erosion/scour protection. They are laid with their diaphragms facing across the slope or across the direction of water flow so that they hold the mass of stone filling in place at regular intervals.



## GABION MATTRESSES

Nominal Box sizes (m)	No. of diaphragms (no.)	Capacity per box (m3)	Standard mesh sizes (mm)	Standard wire diameter (mm)
3.0x2.0x0.17	2	0.90	60 x 80	Heavily Galvanised or Galfan coated wire 2.00, 2.20, 2.40, 2.70, 3.00 <b>OR</b> PVC coated on Heavily Galvanised or Galfan coated wire 2.0/3.0,2.2/3.2,2.4/3.4, 2.7/3.7,3.0/4.0
3.0x2.0x0.23	2	1.35	80x100	
3.0x2.0x0.30	2	1.80	100 x 120	
3.0x2.0x0.50	2	3.00		
4.0x2.0x0.17	3	1.20		
4.0x2.0x0.23	3	1.80		
4.0x2.0x0.30	3	2.40		
4.0x2.0x0.50	3	4.00		
5.0x2.0x0.17	4	1.50		
5.0x2.0x0.23	4	2.25		
5.0x2.0x0.30	4	3.00		
5.0x2.0x0.50	4	5.00		
6.0x2.0x0.17	5	1.80		
6.0x2.0x0.23	5	2.70		
6.0x2.0x0.30	5	3.60		
6.0x2.0x0.50	5	6.00		

## Rockfall Netting

Rockfall netting is made of a continuous roll of triple twisted mesh which can be made in different mesh and wire combinations to suit the rock face being covered.

Unlike chainlink mesh, triple twisted mesh will not unravel if one of the wires should break..

Individual rolls are laced together to form a curtain to control the fall of loose rock and to encourage stabilisation of the rock face by promoting vegetation.